



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 17-17 Technical Advisory

August 7, 2017

TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/Elizabeth W. Phillips
Elizabeth W. Phillips
Manager, Standards and Policy Office
Bridges Division

SUBJECT: *Manual for Assessing Safety Hardware* (MASH) and New
W-beam Guardrail and Guardrail End Treatment Standards

EFFECTIVE: NHS Routes: Letting on or after January 1, 2018
Non-NHS Routes: Letting on or after July 1, 2018

This memo is the continuation of Design Memo 17-10, which discussed changes to the Department's w-beam guardrail and guardrail end treatment standards in accordance the *Manual for Assessing Safety Hardware* (MASH).

The Standards Committee has approved the new *Standard Drawings* series E604-MGSA, Midwest Guardrail System Assembly, revisions to *Standard Drawings* series E604-TBGC, Thrie-Beam Guardrail Components, and associated revisions to *Standard Specifications*, including new pay items. Pay items are an attachment to this memo.

Standard Drawings

The drawings will appear as a Recurring Plan Detail, [RPD 601-R-658d](#) and [RPD 601-R-659d](#) until their incorporation into the next publication of the INDOT *Standard Drawings*.

RPD 601-R-658d contains all of the guardrail and guardrail systems related to MGS w-beam.

- MGS w-beam guardrail assembly details
- MGS w-beam, omitted post details
- MGS long-span (two span length options)
- MGS structure top-mounted post
- MGS transition, with curb details
- MGS transition, without curb details
- MGS height transition
- MGS cable terminal anchor system
- MGS working width

RPD 601-R-659d includes the following revisions

- The addition of an asymmetric w-beam to thrie beam transition section (for MGS Transition)
- The addition of the 6'-3" thrie-beam rail section (for MGS Transition)

Standard Specifications

Revisions to INDOT *Standard Specifications* sections 601, 911, and 926.03 will appear as a Recurring Special Provision, [RSP 601-R-660](#) until its incorporation into the next publication of the *Standard Specifications*. Notable revisions include:

- Distinguish "MGS w-beam guardrail" and "w-beam guardrail"
- Defined "block" as "blockout"
- Defined "wood post" as "timber post"
- Added the use of a 27 3/4" end treatment as an option for MGS w-beam guardrail until the sunset date of June 30, 2018. The approved material list for guardrail end treatment has also been updated to reflect the option.
- Added pay items for MGS w-beam guardrail and related MGS guardrail systems. Pay items are an attachment to this memo.
- Defined method of measurement and basis of payment for new pay items

Application of New Standards (Agreement Deadlines as noted in DM 17-10)

RPD 601-R-658d, RPD 601-R-659d, and RSP 601-R-660 should be included in each contract that utilizes MGS w-beam guardrail or an MGS w-beam related system. Unless directed otherwise from the Office of Standards and Policy, the deadlines to incorporate MGS w-beam are as follows. MGS w-beam may be incorporated prior to the dates shown.

NHS Routes:

- Lettings on or after January 1, 2018

Non-NHS Routes:

- Lettings on or after July 1, 2018

Indiana Design Manual

The *Indiana Design Manual* (IDM) will be updated at a later date. Design Memo 17-10, should be used for design guidance until the IDM update is complete.

Questions

Questions regarding MGS w-beam guardrail should be directed to the Office of Standards and Policy, Katherine Smutzer at ksmutzer@indot.in.gov.